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PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q66048

ERIC YIJING, ZHANG, et al.

Appln. No.: 09/914,650

Group Art Unit: 1791

Confirmation No.: 9665

Examiner: Mark HALPERN

Filed: February 27, 2002

For: METHOD FOR MANUFACTURING BLEACHED MECHANICAL AND
CHEMITHRMOMECHANICAL PULP

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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Application No. 09/914,650

Atty Docket Q66048

I. REAL PARTY IN INTEREST

The real party in interest is HOLMEN AKTIEBOLAG.

II. RELATED APPEALS AND INTERFERENCES

Appellant, Appellant's legal representative, and the Assignee of this application are not aware of any other appeals or interferences which may be related to, directly affect, or be affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1 - 13 are pending in the application.

Claims 8 - 10 have been allowed.

Claims 1 - 7 and 11- 13 are rejected.

This is an appeal from the Examiner's rejection of claims 1 - 7 and 11 - 13 under 25 U.S.C. § 112, second paragraph, for alleged indefiniteness with respect to certain terminology recited in claims 1 and 11. This is furthermore an appeal from the Examiner's rejection of claims 1 - 7 and 11 - 13 under 35 U.S.C. § 103(a) over alleged admitted prior art in view of Madison (U.S. Patent 3,186,899), West (U.S. Patent 3,467,574), and Grimsley (U.S. Patent 4,863,564).

IV. STATUS OF AMENDMENTS

No claim amendments have been requested subsequent to the Amendment filed September 14, 2007, and the final Office Action dated November 5, 2007.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention relates to a method for manufacturing bleached mechanical and chemithermomechanical pulp.

Independent claim 1 is directed to such a method wherein a starting material in the form of lignocellulose material, preferably wood in chip form, is caused to pass through at least one preheater or through a chemical treatment system, and a steam separator, and then through a single refining stage containing one refiner or two refiners with each refiner in the single refining stage being directly followed by steam separation and with only steam separation existing between refiners, in which the lignocellulose material is converted to a pulp suspension which, subsequent to the most downstream of said steam separation, is passed at least to one storage vessel and to a screening department from which the major part of the pulp suspension is taken out as an essentially finished bleached product or is taken out and passed to further treatment stages; and in which reductive bleaching agent as the only bleaching agent is added to the advancing pulp suspension without the use of a bleaching tower or like means, wherein the improvement comprises adding the bleaching agent at a location downstream of the most downstream refiner and upstream of the screening department; and bleaching said pulp under a drastic high condition from the aspect of temperature and a minimized oxygen access condition at said location and immediately downstream of said location (see page 3, line 28 - page 4, line 11; page 4, lines 24 - 32; page 6, lines 4 - 8).

Claims 2 - 7 and 11 - 13 on appeal are directed to preferred embodiments and are directly or indirectly dependent on claim 1.

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Allowed claim 8 is an independent claim, and allowed claims 9 and 10 are dependent on claim 8.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 - 7 and 11 - 13 stand rejected under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness with respect to certain terminology recited in claims 1 and 11.

Claims 1 - 7 and 11 - 13 stand rejected under 35 U.S.C. § 103(a) over alleged admitted prior art in view of Madison (U.S. Patent 3,186,899), West (U.S. Patent 3,467,574), and Grimsley (U.S. Patent 4,863,564).

VII. ARGUMENT

I. Claims 1 - 7 and 11 - 13 are in compliance with the requirement of 35 U.S.C. § 112, second paragraph, and are definite and clear in meaning to a person skilled in the art to which the invention pertains.

First, with respect to the phrase “or like means” at line 12 of claim 1, Appellant respectfully submits that when taken in the context of the whole claim recitation, and considering particularly the recitation

“...in which reductive bleaching agent as the only bleaching agent is added to the advancing pulp suspension without the use of a bleaching tower or like means...”
(claim 1, lines 10 - 12),

the meaning would be completely understandable and definite to a person skilled in the art of manufacturing bleach mechanical and chemithermomechanical pulp.

Second, with respect to the phrase “a drastic high condition from the aspect of temperature” (emphasis per the Examiner), Appellant respectfully submits that when taken in the context of the whole claim recitation, and considering particularly the recitation

“...bleaching said pulp under a drastic high condition from the aspect of temperature...” (claim 1, line 14)

it would be readily understood, clear, and definite to a person skilled in the art of manufacturing bleached mechanical and chemithermomechanical pulp that the bleaching is carried out at a high

temperature relative to the temperatures at which bleaching has been conventionally carried out prior to the presently claimed invention.

Third, with respect to the Examiner's indication that certain steps are optional, the recitation regarding such steps simply makes it clear and definite to a person skilled in the art to which the invention pertains that such options are within the scope of the claimed method.

With respect to claim 11, the Examiner has commented that the terms "very high" and "low" are relative terms. The quoted terminology must be interpreted in view of the context of the disclosure of the specification and the claimed subject matter, meaning that when it is stated that the

"...temperature of the pulp suspension is very high from a
bleaching aspect at a location at which the bleaching agent
is added and immediately downstream of said location"
(claim 11, lines 1 - 3),

it means that the temperature is very high *vis-a-vis* the temperature in the case when the bleaching agent is added in a conventional method.

With respect to the indication in claim 11 that

"the solid content or concentration is low at said location"
(i.e. the location at which the bleaching agent is added)
(claim 11, lines 3 - 4),

it would be completely clear and definite to the person skilled in the art of manufacturing bleached mechanical and chemithermomechanical pulp that the solid content or concentration is low relative to the content or concentration that is conventional in the art.

Accordingly, this honorable Board is respectfully requested to reverse the rejection under 35 U.S.C. § 112, second paragraph.

**II. Appellant's claims are in compliance with the requirements of
35 U.S.C. § 103(a) and are patentable over the prior art.**

Regarding the prior art rejection maintained with respect to claims 1 - 7 and 11 - 13 under 35 U.S.C. § 103(a) based on the asserted combination of alleged admitted prior art in view of the Madison reference, the West reference, and the Grimsley reference, Appellant respectfully submits that the cited art would not and could not be combined in the manner asserted by the Examiner by a person of ordinary skill in the art to achieve the presently claimed invention. It is only by hindsight reconstruction that such a conclusion can be reached.

With respect to independent claim 1, the Examiner referred to MPEP 2129 III with respect to the Examiner's consideration of what is admitted prior art based on the use of the Jepson claim format. However, the combination of known features with features that have not been used previously together with the known features can constitute a novel and nonobvious claimed combination. MPEP 608.01(m).

The Examiner has previously recognized that the "admitted" prior art based on a Jepson type preamble recitation does not include disclosure of expressly adding bleaching agent at a

location downstream of the most downstream refiner, and upstream of the screening department (Office Action of Nov. 5, 2007, at page 4, lines 6 - 7). Furthermore, the Examiner has previously recognized that the bleaching of the pulp under the drastic conditions from the aspect of temperature and the given minimized oxygen accessed at the location and immediately downstream of the location were not known in the alleged admitted prior art (Office Action of Nov. 5, 2007, at page 4, lines 8 - 10).

With respect to the secondary/tertiary references cited by the Examiner, the Examiner has previously recognized that the Madison reference does not disclose expressly bleaching the pulp under the claim-required drastic condition with respect to temperature and minimized oxygen access at the noted location and immediately downstream thereof (Office Action of Nov. 5, 2007, at page 4, lines 13 - 16). The Examiner has also recognized that the West reference does not disclose expressly minimized oxygen access at the noted location and immediately downstream thereof (Office Action of Nov. 5, 2007, at page 4, lines 18 - 20).

Even though the Examiner must make assumptions in order to rely on Madison in combination with the West reference as allegedly disclosing bleaching pulp under drastic conditions and temperature, the Examiner must furthermore rely on yet a third reference to define all features recited in claim 1, viz., Grimsley, as disclosing minimized oxygen access at the noted location immediately downstream thereof.

What has been lacking, however, is an explanation as to why and how a person of ordinary skill in the art would be lead to choose just those selected features of the several secondary/tertiary references, while ignoring other disclosure of those references, to arrive at the

presently claimed invention. The age of the Madison, West, and Grimsley references actually evidences non-obviousness of the asserted combination. There is no basis in the teachings of the cited art or other reason, absent hindsight reliance on Appellant's disclosure, that would lead a person of ordinary skill to the particular necessary selection of the various features required to reach present claim 1.

Therefore, it appears that it is only hindsight that had led the Examiner to a conclusion of obviousness of claims 1 - 7 and 11 - 13.

Accordingly, reversal of this rejection of claims 1 - 7 and 11 - 13 under 35 U.S.C. § 103(a) is respectfully requested.

The USPTO is directed and authorized to charge the statutory fee (37 C.F.R. §41.37(a) and 1.17(c)) and all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

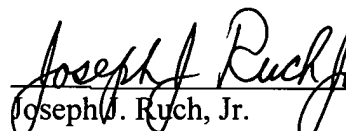
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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: December 5, 2008



Joseph F. Ruch, Jr.
Registration No. 26,577

CLAIMS APPENDIX

CLAIMS 1-7 and 11-13 ON APPEAL:

1. A method for manufacturing bleached mechanical and chemithermomechanical pulp wherein a starting material in form of lignocellulose material, preferably wood in chip form, is caused to pass through at least one preheater or through a chemical treatment system, and a steam separator, and then through a single refining stage containing one refiner or two refiners with each refiner in the single refining stage being directly followed by steam separation and with only steam separation existing between refiners, in which the lignocellulose material is converted to a pulp suspension which, subsequent to the most downstream of said steam separation, is passed at least to one storage vessel and to a screening department from which the major part of the pulp suspension is taken out as an essentially finished bleached product or is taken out and passed to further treatment stages; and in which reductive bleaching agent as the only bleaching agent is added to the advancing pulp suspension without the use of a bleaching tower or like means, wherein the improvement comprises adding the bleaching agent at a location downstream of the most downstream refiner and upstream of the screening department; and bleaching said pulp under a drastic high condition from the aspect of temperature and a minimized oxygen access condition at said location and immediately downstream of said location.

2. A method according to claim 1, characterized by adding complexing agent to the lignocellulose material upstream of and/or in said refiner.

3. A method according to claim 1, characterized by passing the pulp suspension to two refiners in series.

4. A method according to Claim 3 characterized by adding complexing agent to the pulp suspension immediately upstream of and/or in said second refiner.

5. A method according to claim 1, characterized by also passing the pulp suspension to a slusher (latency pulper) located immediately upstream of the storage vessel (the latency chest).

6. A method according to Claim 5, characterized by adding the bleaching agent to the pulp suspension in a pump located in connection with the slusher, said pump being caused to transport the pulp suspension to the storage vessel in a pipe.

7. A method according to claim 1, characterized by causing reject pulp suspension from the screening department to pass through a refiner and thereafter through a slusher whereafter said reject pulp suspension is finally fed into the main pulp suspension flow, preferably upstream of and in connection with the storage vessel (the latency chest) or in the storage vessel (the latency chest).

11. A method according to claim 1, characterized in that the temperature of the pulp suspension is very high from a bleaching aspect at the location at which the bleaching agent is added and immediately downstream of said location and in that the solid content or concentration is low at said location.

12. A method according to claim 1, characterized in that the bleaching agent is a dithionite.

13. A method according to claim 11, wherein the temperature of the pulp suspension is 80 to 90°C at the location at which the bleaching agent is added and immediately downstream of said location and in that the solid content or concentration is 2 to 4% at said location.

EVIDENCE APPENDIX

Pursuant to 37 C.F.R. § 41.37(c)(1)(ix), submitted herewith are copies of any evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in the appeal.

None.

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RELATED PROCEEDINGS APPENDIX

Submitted herewith are copies of decisions rendered by a court or the Board in any proceeding identified about in Section II pursuant to 37 C.F.R. § 41.37(c)(1)(ii).

None.



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SUBMISSION OF APPEAL BRIEF


MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Appeal Brief. The USPTO is directed and authorized to charge the statutory fee of \$540.00 and all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


Joseph J. Ruch, Jr.
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For: METHOD FOR MANUFACTURING BLEACHED MECHANICAL AND
CHEMITHRMOMECHANICAL PULP

PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.136

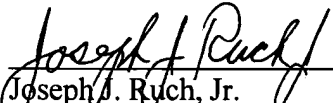
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. § 1.136, Applicant hereby petitions for an extension of time of five month(s), extending the time for responding after the Notice of Appeal filed May 5, 2008 from July 5, 2008 to December 5, 2008.

The USPTO is directed and authorized to charge the statutory fee of \$2350.00 and all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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